Aztech Technologies, Inc.
Woman Owned Business

REMEDIATION SOLUTIONS ▪ ENVIRONMENTAL CONSULTING ▪ DRILLING APPLICATIONS

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Ms. Catherine Devine
Baker-Properties Limited Partnership
Property Management Assistant
One West Red Oak Lane
Fort Plains, NY 10604

March 10, 2014

RE: Sub-Slab Depressurization System (SSDS) – Annual Inspection Report

Dear Ms. Devine,

Aztech Technologies, Inc. (Aztech) is pleased to provide the following report of the annual SSDS inspection. The purpose of this report is to present the findings of the SSDS inspection conducted at the former Magna Metals site located at 510 Furnace Dock Road, Cortlandt Manor, NY.

On December 26th, 2013, during a routine inspection of the vacuum indicator lights, the building tenant observed that one of the three lights was illuminated. Aztech was notified the same day by the property manager. On December 30th 2013, Aztech mobilized to the site and confirmed that fan #1 was not running. After multiple attempts troubleshooting and testing it had been determine that the motor had overheated multiple times due to excessive vacuum. After further examination, it had been determined that the motor coils had experienced irreversible damage. While on site fan #2 was tested and displayed amperage above the maximum rated amperage. This fan also showed signs of continuous overheating and potential failure.

On March 5th, 2014, fan #1 and fan #2 were replaced with HS-2000 model Radon mitigation fans (previously HS-5000). This model serves the purpose to provide soil vapor mitigation without the excessive vacuum and subsequent overheating which the previous model endured. Air bleed valves were also installed into the existing piping in order to calibrate the level of suction and amperage that the new fans were drawing. This addition will greatly increase the longevity of the system fans. Fan #3 was found to be in good working condition (previously replaced with HS-2000).

Following the installation of the new fans, the senior-level technician completed an annual system inspection. All components of the system were inspected for functionality and integrity. These components include but are not limited to coupling connections, fan mounting hardware, building slab, and electrical connections. A complete list of all inspected components can be found on the attached system inspection form.

Manometer readings were verified at each specified point to check for proper vacuum levels. The integrity of all piping throughout the three fan system was found to be satisfactory. The system is currently in good operating condition. Aztech recommends continuing the annual system inspection schedule in order to ensure the proper operation of the system.

We thank you for the opportunity to provide an inspection and operation & maintenance on your system.

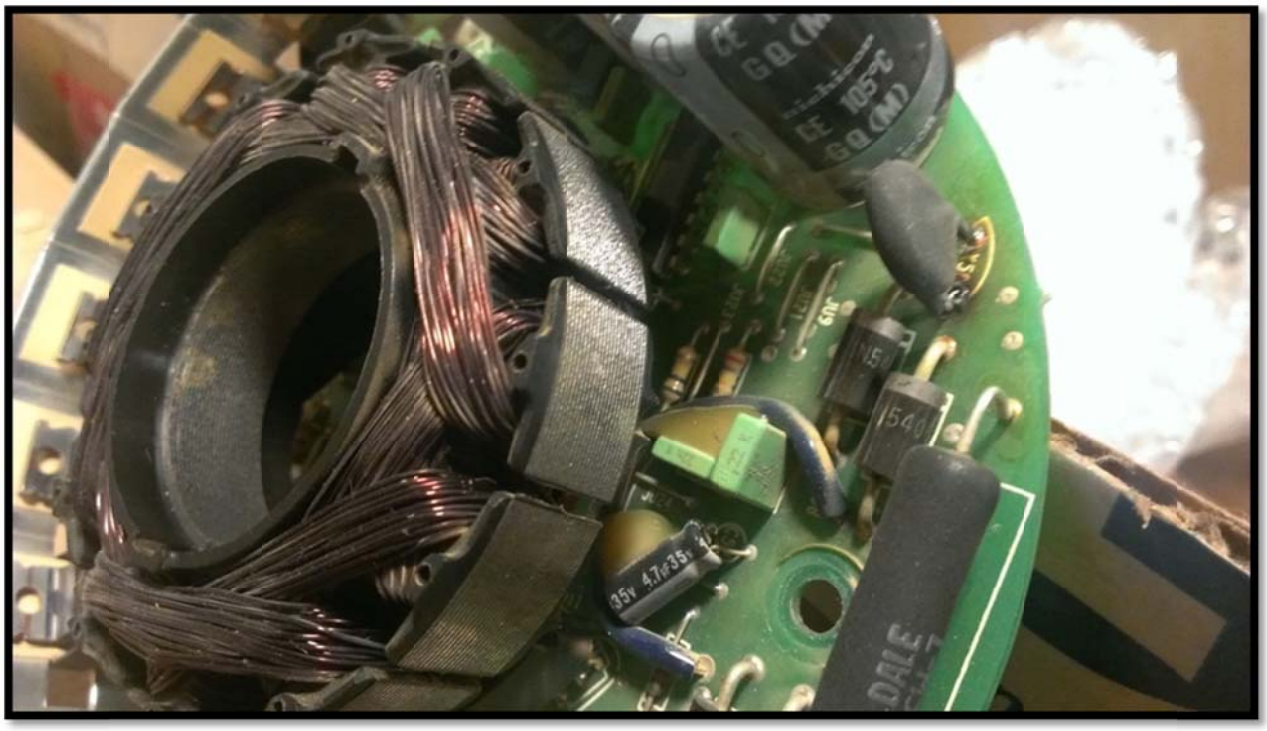
Sincerely,

Aztech Technologies, Inc.

Joseph Sabanos
Project Manager
Attachements: Photos and SSDS Incpection Form

Seen here is fan #1 with its protective casing removed. Technicians troubleshooted the fan and motor while on site. The fan was brought back to the shop for additional evaluation.

Seen here is fan #2 temporarily unplugged, as it was drawing amperage above its max rating



Seen here is the overheated motor coils and burnt out fues in the upper right hand corner. After replacing the fuse, the motor continued to draw amperage above acceptable limits.

System Inspection Field Form
Soil Vapor Mitigation Systems

SVE SYSTEMS INSPECTION FORM

Post Commissioning, Routine or Non-Routine Inspections (circle one)

Date of Inspection: March 5th, 2014

Date of Previous Inspection: January 24, 2013

Address: Furnace Dock Road Cortlandt Manor, NY Tracking Number: _____

Equipment Documentation

As Found		Manometer Reading (in. H_20)		As Left		Manometer Reading (in. H_20)	
SVE System	Fan Model	Prior	Current	SVE System	Fan Model	Prior	Current
1-Northern	HS-5000	3.32	-	1-Northern	HS-2000	-	10
2-Central	HS-5000	2.29	-	2-Central	HS-2000	-	14
3-Southern	HS-2000	1.75	14	3-Southern	HS-2000	-	14

Fan Check	As Found Yes	As Found No	As Left Yes	As Left No
Are all fans in operation?		X	X	
Is there a differential pressure shown in U-Tube manometer?	-	-	X	
If yes, provide readings above.				
Is each fan mounted securely?	X		X	
Are coupling connections secure?	X		X	
Is excessive noise heard when fan is running?		X		X
Does each fan induce suction when running?	X		X	
Is switch is locked in the ON position?	X		X	
Does smoke enter joints?	-	-	-	-
If yes: Was joint re-sealed?				
Does smoke enter re-sealed joint?	-	-	-	-
Piping Check				
Is glue evident at joints?	X		X	
Are system suction points sealed?	X		X	
Is piping system properly supported?	X		X	
Are valves and manometers installed at proper locations?	X		X	
Is excessive noise heard in piping joints?		X		X
Were piping modifications and 10% of old joints smoke tested?		X	X	
Does smoke enter joints?	-	-		X
If yes: Was joint re-sealed?			-	-
Does smoke enter re-sealed joint?	-	-	-	-
Slab Check				
Have new floor cracks appeared since the last inspection?				
Was each identified slab crack, repair, or modification smoke tested?	No Cracks Identified			

Does smoke enter?	-	-	-	-
If yes: Was area re-sealed with approved sealant*?				
Does smoke enter re-sealed area?	-	-	-	-
Electrical Check				
Are electrical wires and connections secure?	x		x	
Is each junction box closed?	x		x	
Are conduit properly supported?	x		x	
Are switch boxes locked?		x	x	
Does each fan start when the switch is ON position?	x		x	
Does each fan stop when the switch is in OFF position?	x		x	
Are mitigation system labels applied?	x		x	
Are the correct labels applied in the proper locations?	x		x	

Have the following items changed since the last visit?

	No	Yes	If yes, explain…
Building Footprint	x		
Ownership	x		

If any of these items have changed, a redesign may be required.
Contact the maintenance supervisor for field review.

Deviations/Comments

This is the second annual inspection conducted since the installation of the soil vapor extraction (SVE) system in December of 2011. Pressure indicators lights are working and signal when system pressure is lost in each of the three fan systems. System changes include replacement of fans #1 and #2 with HS-2000 Radon mitigation fans (HS-5000's were previously installed). Air bleed valves were installed for fans #1 and #2 in order to increase the longevity of the system by regulating vacuum and amperage levels drawn by each fan.

Performed by: LG + AT Date: 12/30/2013